

[018] Figs. ~~[[3 is]]~~ 3A and 3B are each a perspective representation of the electromagnetic selection device as pre-assembled structural unit. ¶

[025] The selector unit 20 has two magnet coils 22, 23 between which an armature 24, designed as an annular part, is axially movably disposed. With the armature 24 are coordinated one left armature counterpart 25 and one right armature counterpart 26, respectively, in the area of the left magnet coil 22 and of the right magnet coil 23. The armature 24 is fixedly connected with the outer ring of the grooved ball bearing ~~[[24]]~~ 19, that is, the axial motion of the armature 24 is transmitted directly to the sliding sleeve 14. Herebelow is described the exact structure of the selector unit 20. ¶

[028] Figs. ~~3 shows~~ 3A and 3B each show a representation in perspective of the above described selector unit 20 as a complete front-mounted structural unit 30 in two representations with different switch positions. The left figure (Fig. 3A) corresponds to the representation in Fig. 2, that is, the armature 24 is in its left position. The right figure (Fig. 3B), on the other hand, shows the armature 24 in its right position. The selector unit, shown in Fig. 2, is completed by the bearing 19 and the selector sleeve 14. Together with the magnet coils 22, 23, the armature 24 and the magnet body 27, these parts result together in the compact structural unit 30 introduced as such in the gear set shown in Fig. 1 and fastened there. From the representation can be easily noted that the sliding sleeve 14 is encased and thus cannot cause much churning losses. ¶

1-9. (CANCELED)

10. (CURRENTLY AMENDED) A two-stage planetary gear set (1) having:

[[one]] an input shaft (2) and [[one]] an output shaft (3),

[[one]] a sun gear (8), [[one]] a ring gear (11), [[one]] and a planet carrier (10) with planetary gears ~~[[5]]~~ (9),

[[one]] a transmission housing (6), and

[[one]] an electromagnetic selection device having [[one]] a sliding sleeve (14) for switching a first gear, in which the ring gear (11) can be coupled with the housing (6), and a second gear, in which the ring gear can be coupled with the sun gear (8), ~~[[The]]~~ the sliding sleeve (14) being displaceable by ~~means of one~~ an electromagnet ~~consisting of~~ comprising magnet coils (22, 23) and [[one]] an armature (24),

wherein a bearing (19) directly connects the armature (24) to the sliding sleeve (14) such that the armature (24) is situated rotatably but axially fixed [[upon]] to the sliding sleeve (4) but the sliding sleeve (4) is rotatable relative to the armature (24).

11. (CURRENTLY AMENDED) The planetary gear set according to claim 10, wherein the armature (24) is ~~designed as an annular part and is fastened by means of one bearing (19) upon which surrounds~~ the sliding sleeve (14).

12. (PREVIOUSLY PRESENTED) The planetary gear set according to claim 10, wherein the magnet coils (22, 23) are located within the transmission housing (6).

13. (CURRENTLY AMENDED) ~~The planetary gear set according to claim 11,~~ wherein A two-stage planetary gear set (1) comprising:

an input shaft (2) and an output shaft (3);

a sun gear (8), a ring gear (11) and a planet carrier (10) having planetary gears (9);

a transmission housing (6); and

an electromagnetic selection device having a sliding sleeve (14) for switching a first gear, in which the ring gear (11) can be coupled with the housing (6), and a second gear, in which the ring gear can be coupled with the sun gear (8), the

sliding sleeve (14) being displaceable by an electromagnet comprising magnet coils (22, 23) and an armature (24);

wherein the armature (24) is situated rotatably but axially fixed upon the sliding sleeve (4);

the armature (24) is an annular part which is fastened by upon the sliding sleeve (14) via a bearing (19);

the armature (24) has ~~[[one]]~~ an outer and, axially offset, ~~[[one]]~~ an inner slope (24a, 24b) with which ~~can be~~ are respectively coordinated ~~[[one]]~~ with a slope of outer and ~~[[one]]~~ inner armature counterparts (26, 25), and the armature slopes of the armature and the armature counterparts each forming one form a sliding cone.

14. (CURRENTLY AMENDED) The planetary gear set according to claim 13, wherein an angle (α) of the ~~armature slopes of the armature and~~ [[or]] of the cone amounts to about 3 degrees.

15. (CURRENTLY AMENDED) The planetary gear set according to claim 13, wherein the armature slopes (24a, 24b) are delimited by annular front faces (24c, 24d) which act as stop surfaces ~~for terminal~~ defining end positions of the armature (24).

16. (CURRENTLY AMENDED) The planetary gear set according to claim ~~[[s]]~~ 11, wherein the magnet coils (22, 23), the armature (24) with ~~[[a]]~~ the bearing (19), the sliding sleeve (14), and ~~[[the]]~~ armature counterparts (25, 26) are accommodated in ~~[[one]]~~ a magnet body (27) which is ~~designed as~~ a front-mounted structural ~~[[part]]~~ unit (30) ~~and can be that is~~ inserted in the transmission housing (6).

17. (CURRENTLY AMENDED) The planetary gear set according to claim 16, wherein on ~~[[one]]~~ a front side (27c) of the structural unit (30) is situated ~~[[one]]~~ a brake disc (18) provided with ~~[[one]]~~ an inner coupling gearing (17) which together with the structural unit (30) is fastened ~~[[in]]~~ to the transmission housing (6).

18. (CANCELED)

19. (NEW) A two-stage planetary gear set (1) comprising:
an input shaft (2) and an output shaft (3);
a sun gear (8), a ring gear (11), and a planet carrier (10) having rotatable planetary gears (9);
a transmission housing (6); and
an electromagnetic selection device having a sliding sleeve (14) for selectively engaging a first gear, in which the ring gear (11) is coupled with the housing (6), and a second gear, in which the ring gear is coupled with the sun gear (8), and the sliding sleeve (14) being displaceable by an electromagnet comprising magnet coils (22, 23) and an armature (24);
wherein a bearing (19) directly connects the armature (24) to the sliding sleeve (4) such that the sliding sleeve (4) is fixed to and moves axially along with the armature (24) while the bearing (19) facilitates relative rotation between the sliding sleeve (4) and the armature (24).
20. (NEW) The planetary gear set according to claim 19, wherein the armature surrounds the sliding sleeve (4) and is located between the sliding sleeve (4) and the transmission housing (6).
21. (NEW) The planetary gear set according to claim 19, wherein the armature (24) has an exterior outer slope and an interior inner slope (24a, 24b) which facilitate axially movement of the sliding sleeve (4).
22. (NEW) The planetary gear set according to claim 19, wherein the armature surrounds the sliding sleeve (4) and is located between the sliding sleeve (4) and the transmission housing (6); and
the armature (24) has an exterior outer slope and an interior inner slope (24a, 24b) which facilitate axially movement of the sliding sleeve (4).